

# pragma's product profiles

Issue #46

The free newspaper for Pick™ users.

April 1, 1988

## Does Your Mailing Label Say RENEW?

If your mailing label says RENEW, your subscription is about to expire! To avoid missing your next free issue of *Product Profiles*, renew IMMEDIATELY by filling out and returning the front cover coupon for a free subscription! The last two digits of your mailing label indicate the number of the last issue you'll receive.

**Pragma's Product Profile**  
is published periodically by  
Semaphore Corporation,  
207 Granada Drive, Aptos, CA 95003,  
(408) 688-9200.

Entire contents copyright © 1988 by  
Semaphore Corporation.  
All rights reserved. No part of this  
publication may be reproduced in any  
form or by any means without prior  
written permission from Semaphore.  
Semaphore offers no warranty, either  
express or implied, for any losses due to  
the use of any material published.

Subscriptions are free, but are available  
only to Pick users with USA mailing  
addresses. Semaphore cannot be  
responsible for lost issues or issues  
returned to us because of address  
changes.

All material received will be considered  
for publication. Semaphore reserves the  
right to edit all submissions.

Pick is a trademark of Pick Systems.  
Semaphore Corp. is not affiliated with  
Pick Systems.

## Pragma's Product Profiles is completely FREE!

Name \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City/State \_\_\_\_\_ ZIP \_\_\_\_\_  
Telephone \_\_\_\_\_

I use the Pick operating system and my mailing address is in the USA.  
Please continue sending me *Pragma's Product Profiles* free of charge.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Return this form to:  
Pragma • 207 Granada Drive • Aptos, CA 95003

*Pragma's Product Profiles*  
207 Granada Drive  
Aptos, CA 95003

BULK RATE  
U.S. POSTAGE  
PAID  
APTOS, CA 95003  
Permit No. 67

Address Correction Requested

## The software alarm clock, revisited

The software alarm clock featured in the last issue of *Product Profiles* has generated a lot of interest. A number of users have contacted us about how they plan to use the programs we presented. Some sites are leaving the code unchanged, while others are adapting the "sleeping sentinel" design for other purposes, such as overnight batch processors, print job schedulers, and so on.

A number of users had questions about some of the ideas we mentioned but didn't show how to implement. All of those questions are answered here.

**Q. I'm not an experienced Pick programmer. How do I define the DATE and TIME dictionary words for the REMINDERS file so the SSELECT command works in the STANDBY proc?**

**A. The DATE and TIME items should look like this:**

DATE	TIME
001 S	001 S
002 0	002 0
003	003
004	004
005	005
006	006
007 D2-	007 MTS
008 G2 1	008 G3 1
009 R	009 R
010 10	010 10

**Q. How can my alarm clock tell if an account I want to send a message to is actually logged on somewhere?**

**A. On our system, we go ahead and let STANDBY send the message with MSG. If the account isn't logged on, we get error [337] USER IS NOT LOGGED ON. The proc can then test for that error with IF E = 337...**

**Q. How do we set up a "reminder**

*"acknowledged"* program like the RECEIVED routine you hinted at?

**A. First, remove the DELETE ID statement from the announce program. That leaves the reminder item in the REMINDERS file so that ANNOUNCE repeatedly finds it and sends it each time STANDBY wakes up.**

**Then create a RECEIVED proc similar to STANDBY:**

```
PQ  
HSSELECT REMINDERS BY DATE BY TIME  
STON  
HRUN BP RECEIVED  
P
```

The RECEIVED program is similar to ANNOUNCE:

```
OPEN "REMINDERS" ELSE  
STOP "No REMINDERS!"  
MYACCT = SYSTEM(19)  
LOOP  
READNEXT ID ELSE STOP  
ACCT = FIELD(ID," ",1)
```

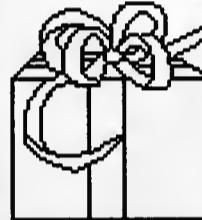
## FREE Back Issues

A few back issues of *Pragma's Product Profiles* are still available while supplies last. To receive your FREE copies, indicate which issues you need and send a stamped, self-addressed envelope with \$2.40 postage to:

**Pragma's Product Profiles  
207 Granada Dr. • Aptos CA 95003**

- Issue #29: How To Crunch Code
- Issue #35: We Got A Phone Call...
- Issue #36: Writing Your Own Editor
- Issue #37: Techies Talk Tape Transfers
- Issue #39: A Pop-up Calculator
- Issue #40: The Perfect Environment?
- Issue #41: An F-conv Input Processor
- Issue #42: Automating Shipping Counters
- Issue #43: Two Techies Talk Telecom
- Issue #44: CPU-less Data Entry
- Issue #45: A Software Alarm Clock

## FREE GIFT!



Here is the name and phone number of a Pick user working at a USA company. The company is not already on the *Product Profiles* mailing list:

Name \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City/State \_\_\_\_\_ ZIP \_\_\_\_\_  
Telephone \_\_\_\_\_

Please send the above user a sample copy of *Product Profiles*, and send me a FREE gift as my reward for this referral. My mailing label from this issue is attached.

Attach your mailing label and return this form to:  
**Pragma • 207 Granada Drive • Aptos, CA 95003**

## Does Your Mailing Label Say RENEW?

If so, your subscription is about to EXPIRE! To avoid missing your next free issue of *Product Profiles*, renew IMMEDIATELY by filling out and returning the front cover coupon for a free subscription!

**The last two digits of your mailing label number indicate the number of the last issue you'll receive.**

12399/46 RENEW  
LOTTO PRINTING SYSTEMS CORP  
5000 INDUSTRIAL BLVD M/S 45A  
CITY OF INDUSTRY CA 91744

# COURSEWARE!!!

Now you can truly master the use of your Pick system with the finest computer-based training available from the leaders in tutorial software...

## The Word Processor Electronic Tutorial

With this learning system you will quickly gain a "feel" for the word processor on your Pick system, while you master all of its fundamental and advanced uses. Available for JET, "The Works", UltiWord, WordMate or Documentor.

## The CompuSheet+ Electronic Tutorial

Never before has it been this easy to learn the fundamental and advanced uses of this marvelous spreadsheet package. Learn right on the screen through many examples and exercises.

## The PROF Electronic Tutorial for Pick

Enter the world of Pick with a complete electronic learning system. This wonderful package has been used by thousands of users to learn the fundamentals of the Pick database, TCL, EDITOR, ACCESS, PROC and Pick BASIC.

Each of these training products is a complete, computer-based, self-study teaching system that anyone can use over and over again. Each teaches you through simulated hands-on work sessions in which you actively participate. They are clever, entertaining, and all learning is done right on the terminal.

Yes! Please send more info on: \_\_\_\_\_

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ Computer \_\_\_\_\_

### **CRESCENDO Associates, Inc.**

24350 Joy Road, Suite 9 Redford Township, Michigan 48239 (313) 537-1919

CompuSheet + is a trademark of Interactive Systems  
Prof is a trademark of Crescendo Associates, Inc.  
Pick is a trademark of Pick Systems, Irvine, CA

```

UNTIL ACCT = MYACCT DO REPEAT
READ MSG FROM ID ELSE MSG = ""
DELETE ID
PRINT "Reminder ::MSG:: deleted."
STOP
END

```

The above changes cause a user to repeatedly receive reminders until the user types RECEIVED. The RECEIVED program then simply deletes the oldest reminder filed for the user's account.

**Q. Can you show us what a reminders editor would be like?**

**A. Create a proc named REVIEW that invokes a program named REVIEW, just like the RECEIVED program and proc work:**

```

PQ
HSSELECT REMINDERS BY DATE BY TIME
STON
HRUN BP REVIEW
P

```

Here's a possible REVIEW program:

```

OPEN "REMINDERS" ELSE
  STOP "No REMINDERS!"
MYACCT = SYSTEM(19)
100 READNEXT ID ELSE STOP
ACCT = FIELD(ID, ",1)
IF ACCT = MYACCT THEN
  READ MSG FROM ID ELSE MSG = ""
  IDATE = FIELD(ID, ",3)
  ITIME = FIELD(ID, ",4)
  LOOP
  PRINT "Reminder waiting for :"
  PRINT OCONV(IDATE,"D2-"):" "

```

```

PRINT OCONV(ITIME, "MTS")
PRINT MSG
PRINT "D/T/M/FILE/EXIT/DROP":
INPUT COMMAND
UNTIL (COMMAND="FILE") OR
(COMMAND="EXIT") OR
(COMMAND="DROP") DO
BEGIN CASE
CASE COMMAND = "D"
  PRINT "DATE": ; INPUT ODATE
  IDATE = ICONV(ODATE, "D")
CASE COMMAND = "T"
  PRINT "TIME": ; INPUT OTIME
  ITIME = ICONV(OTIME, "MT")
CASE 1
  PRINT "MSG": ; INPUT MSG
END CASE
REPEAT
IF COMMAND # "EXIT"
  THEN DELETE ID

```

# B-TREE-P

## B-trees for Pick systems.<sup>TM</sup>

Tired of waiting for your computer to SORT or SELECT your large data files? Need to quickly find any attribute? Want to scroll files up or down, in any sort order? With B-TREE-P you can instantly search, sort, and scroll any data from any file!

Now you can instantly look up customers by name, street, Zip code, or any other field — not just by customer number. Now you can immediately find inventory entries by quantity, cost, or description — not just by part number. Whatever files you use, now you can instantly locate and display your data any way you want, without having to wait for endless SORTs and SELECTs.

Immediately display any record in any file just by typing one or more starting characters that match any field in the record. You can display not only a selected record, but also any previous and next records, using any sort order you specify. You can jump to any record in a file at any time, then browse through the file by scrolling up or down, a record at a time or a page at a time, in any sort order.

As one of Semaphore's programmers says: "We often ask ourselves why we waited so long to create B-TREE-P. After using it for our own production work, we wonder how we ever got by before without it. A Pick computer without B-TREE-P is like a car without wheels".

B-TREE-P is a proven collection of BASIC subprograms for using B-trees on your computer system. B-trees allow any of the data in any of your files to be instantly located and displayed in any sort order, without having to wait for SORT or SELECT commands.

B-TREE-P and a few optional minor modifications to your existing data entry programs are all that is necessary for you to immediately be able to search, browse, display, or print your data quickly and conveniently. Modifications to your existing data files are absolutely unnecessary!

Here are a few of the ways our customers have put B-TREE-P to work:

- Within minutes of loading the B-TREE-P source code, one of our first customers began using B-TREE-P's standard "browser" for searching a 120,000+ record customer master file. Any name, company, or address can immediately be located and displayed, just by typing one or more characters that match the field. No more waiting for SELECTs!
- Another customer has set up B-TREE-P for purchase order inquiries. A file of multivalued line items and submultivalued delivery dates and quantities can instantly be viewed by item or by date. Pages can be scrolled at the terminal, forward or backward. Any range of data can be

instantly printed. No more waiting for SORTs!

• A California county jail uses B-TREE-P for inmate cash accounting. Although cash records are filed by inmate booking numbers, B-TREE-P allows a list alphabetized by the name attribute to be displayed at all times, even as records are created and deleted at other terminals. Any inmate record (or nearest match) can be immediately found and displayed just by typing one or more characters in a name.

• A manufacturer uses B-TREE-P to let marketing personnel instantly display sales orders six different ways: by part, by description, by ship date, by sales rep, by customer name, and by sales territory. With just a few keystrokes, operators can instantly display records under a new sort (subsorts too) or find and output a given item.

B-TREE-P includes all necessary BASIC source code for a B-tree system that works with any file. Included are an insertion subroutine, deletion subroutine, lookup subroutine, previous/next subroutine, and complete instructions. Plus, you receive the source code for a complete demonstration system that uses B-TREE-P to maintain a name and address file, including an editor program for creating and changing name and address records, a browser program for displaying records, and a printer program for listing file items in order without having to wait for a sort.

To order, send your name, address, telephone number, and your check for \$395 (plus tax in California) payable to Semaphore Corp. at 207 Granada Drive, Aptos, CA 95003. Or call us at (408) 688-9200 for more information or to place a COD order. We'll send you complete B-TREE-P source code and all necessary documentation, along with all back issues of our special B-tree newsletter.

B-TREE-P includes a license agreement limiting your use of B-TREE-P to one computer at a time. Multi-CPU and OEM resale agreements are also available. Pick is a trademark of Pick Systems.

# **Questions Most Frequently Asked About STRIDE/Z**

## **1. What is STRIDE/Z?**

STRIDE/Z is an integrated package of manufacturing software for General Automation Zebra computers using the Pick operating system. STRIDE/Z is a product of Semaphore Corporation.

## **2. What software is included in the STRIDE/Z package?**

STRIDE/Z includes 18 modules to automate every aspect of a manufacturing company: accounts payable, accounts receivable, cost accounting, customer service, engineering, fixed assets, general ledger, inspection, order entry, payroll, personnel, production control, programming, purchasing, receiving, shipping, shop floor, and stock room. The production control module includes regenerative Materials Requirement Planning.

STRIDE/Z consists of approximately 200 programs, 350 procs, 80 formatted screens, 655K bytes of online user documentation, and 225K bytes of online programmer cross reference documentation. The approximately 100 files in STRIDE/Z require 2.5 million bytes of disk space for installation. STRIDE/Z uses no assembler code.

## **3. Why is STRIDE/Z better than other manufacturing packages?**

STRIDE/Z works. It was developed from scratch over a two year period at a actual electronics manufacturer, sales climbed from \$10 million to over \$20 million.

STRIDE/Z has a clean, modular, well-structured, and conceptually integrated design. All design and implementation work was the effort of an individual programmer. Unlike other large software products, STRIDE/Z is not a collection of ad hoc patches and multiple programming styles.

STRIDE/Z simultaneously and correctly updates multiple files as soon as transactions are entered, in order to provide a database that is always up to date, and to avoid unfriendly batch-style processing.

STRIDE/Z is well-documented, especially for the programmer. Extensive cross-references carefully document all program, proc, and data

interdependencies, so that modifications are easy and predictable.

And STRIDE/Z is inexpensive.

## **4. How can I find out more about STRIDE/Z?**

Call or write Semaphore Corporation,  
207 Granada Dr., Aptos, CA 95003,  
(408) 688-9200.

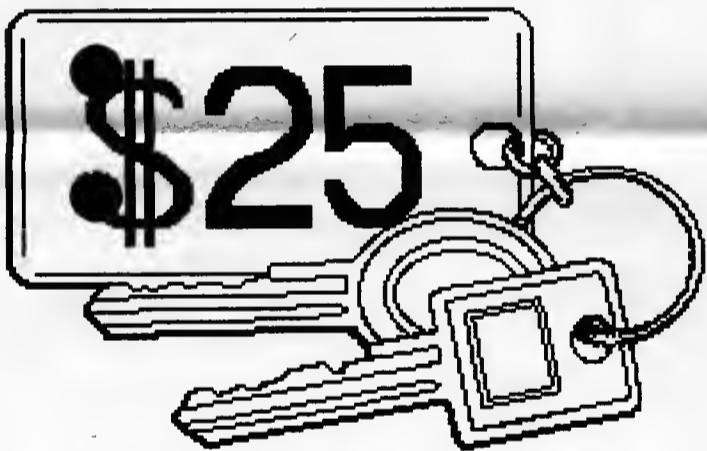
# The Pick Mailing List CREAM of the CROP

The 3,000 most responsive Pick users' names and addresses. Only \$150 plus tax for one-up adhesive labels, sorted, printed, and delivered. Send no payment without first obtaining our order form and one-time use agreement.

P/Mail by Marianne • 1893 Nadina St. • Seaside CA 93955

Semaphore Corporation welcomes its newest B-TREE-P customers:

**Brigham Young University  
Concept Systems Inc.**



**Pragma** (not to be confused with *Pragma's Product Profiles*) is the original 48-page technical journal for Pick users published quarterly beginning in August 1982. Each issue is packed with software and helpful information, including complete and debugged program listings and detailed, explanatory articles for readers at all levels of experience. Order your **Pragma** issues today and begin unlocking the secrets in your Pick system!

*Send \$25 for each 48-page back issue to:  
Pragma, 207 Granada Dr., Aptos, CA 95003*

**Pragma #1:** Welcome to Pragma ° ZIP Code File Design ° A Program for Renumbering Statement Labels ° Deriving Year-to-Date Counts ° VANILLA, The No-Frills Manufacturing System: The Parts File ° Molelectron User Profile ° More Memory, Fewer Reads ° SYSMAP: A Cross-Reference System ° How to Flag Missing Checks ° 23 Wish List Items ° Computing Modulos with ENGLISH ° Building ENGLISH Headings with Proc ° 4 Queries ° Making Item Identifiers Hash Well ° Tape Handling ° Patching the Exit Problem in 3.2 SCREENPRO: The Shell Game.

**ISSUE #1  
IS A  
REPRINT**

**Pragma #2:** We Have Liftoff ° A Modulo Setting Program ° Black Box Formatting ° TRIM.DELIM and PROFILE Utilities ° SYSMAP, A Cross-Reference System: File Format Input ° Galinski Hamburg User Profile ° LOOP vs. LOCATE Benchmarks ° 25 Wish List Items ° An Introduction to ENGLISH: Jargon ° Proc Conversions ° VANILLA, The No-Frills Manufacturing System: Bill of Material Input ° 14 Queries ° The Trouble Tree ° 2 Letters ° A Switchbox for 32 Ports ° Security and the DATA/BASIC Programmer ° The Cookie Game ° Some New Subscribers.

**Pragma #3:** Is Pragma a Rare Medium, Well Done? ° Edit Aides ° A Proc for Cross-Referencing Q-Pointers ° SYSMAP, A Cross-Reference System: Remaining File Input ° Rainbow Natural Foods User Profile ° More BASIC Benchmark Comparisons ° Justifying Ragged Output ° 13 Wish List Items ° Generating Monthly Column Headings ° VANILLA, The No-Frills Manufacturing System: Purchasing ° 5 Queries ° An Introduction to ENGLISH: More Commands ° Shared Site Checklist ° Converting Paint to Programs ° 3 Letters ° Generating Blank Forms ° Animal, A Game That Learns ° More New Subscribers.

**Pragma #4:** Survey Says... ° Pacific Valley Bank User Profile ° SYSMAP, A Cross-Reference System: Dicts and Procs ° Uncompiling: Unassembling Stack Code ° Left vs. Right Justification Benchmarks ° 4 Wish List Items ° A Comparison of BASIC Implementations ° More New Subscribers ° An Undocumented Editor Capability ° 3 Local User Group Reports ° Avoiding Saved Lists with PQ-RESELECT ° Self-Documenting Reports ° A Query ° A Survey of Hardware that Supports Pick-Style Software ° Printer Trade-Offs ° An Introduction to ENGLISH: Finding Files ° A Letter ° VANILLA, The No-Frills Manufacturing System: Purchase Order Entry ° The Swat! Game.

**Pragma #5:** Happy Birthday ° Interactive Systems Producer Profile ° Uncompiling: Regenerating Source Code ° A Day of Revelation ° IBM Personal Computer vs. Microdata Reality Benchmarks ° VANILLA, The No-Frills Manufacturing System: Receiving ° 3 Wish List Items ° An Introduction to ENGLISH: Being Choosy ° Converting Manual Paint to Programs ° 6 Local User Group Reports ° More New Subscribers ° A Program That Reports File Pointer Locations ° Boiler Plate Processing with Runoff ° A New Query and an Old Query Answered ° SYSMAP, A Cross-Reference System: Automation ° Tape Types ° 6 Letters ° Permutated Index to the First 4 Issues of Pragma ° Amazing, a Maze Game.

**Pragma #6:** Pick Pie Pictured ° The Ubiquitous POINTER-FILE ° Uncompiling: Resolving Labels ° An Introduction to ENGLISH: Syntax Overview ° AccuSoft Producer Profile ° Rounding Out 7 Benchmarks On 5 Machines ° Designing Data Entry Programs ° 12 Wish List Items ° GET: An Input Processor ° 5 Local User Group Reports ° More New Subscribers ° Do You Know Your Proc Limits? ° VANILLA, The No-Frills Manufacturing System: Inspection ° 2 Queries ° Individual Accounts or Shared Accounts? ° Lock Logic Illustrated ° Password Protection ° Two Undocumented Conversations ° A Letter ° How AMAZING Works.

**Pragma #7:** More New Subscribers ° A New Machine Visits Pragma ° Bantam Hardware Overview ° Suppressing LOCKED Clauses ° An Introduction to ENGLISH: WITH, BY and TOTAL ° Bantam Producer Profile ° VANILLA, The No-Frills Manufacturing System: Disposition ° A Bantam Diary ° New Benchmark Timings for 8 More Machines ° 6 Local User Group Reports ° GET: Source Code ° A Preprocessor for Symbolic Statement Labels ° 2 Wish List Items ° 3 Queries ° Bantam Software Overview ° A Letter ° The Slide Game.

## Unlock the Secrets in Your Computer!

```
IF COMMAND = "FILE" THEN WRITE MSG ON
MYACCT:"":TIME():":IDATE:"":ITIME
END
GOTO 100
END
```

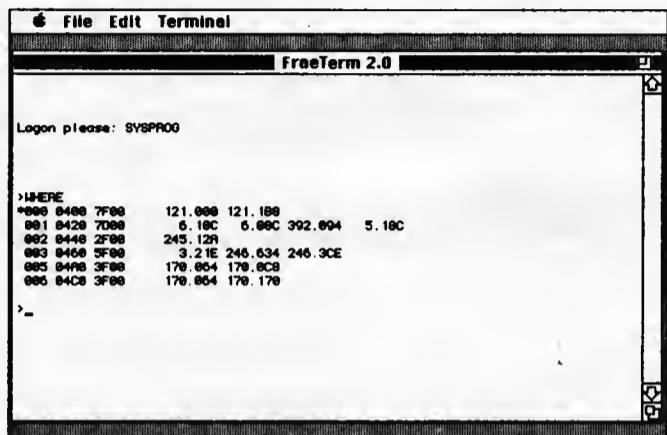
Note how REVIEW reads every reminder id, but only edits those for the current account. Also notice how *every* unexited reminder is deleted and then filed anew.

**Q. How should ANNOUNCE change if STANDBY uses a long sleep time?**

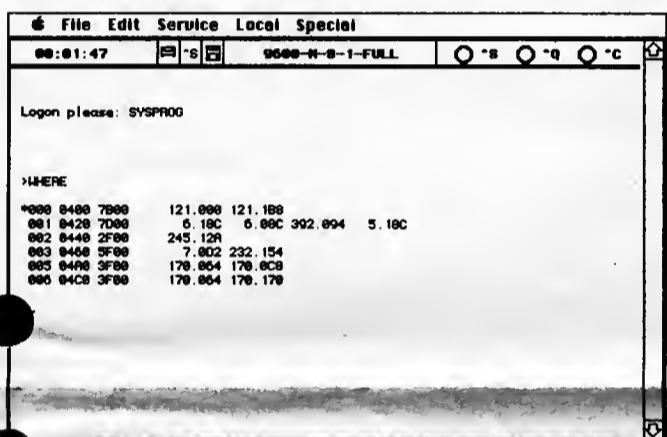
A. Lets say you make the STANDBY proc sleep for an hour at a time instead of just 60 seconds. From then on, ANNOUNCE has to be sure to announce not just the past due reminders, but all reminders due in the next hour, otherwise it will be too late for a message by the time ANNOUNCE wakes up again.

The original ANNOUNCE code determines that a reminder is past due if its IDATE is less than or equal to the current DATE () and if its ITIME is less than or equal to the current TIME (). Your new version of ANNOUNCE should use a date and time of one hour later. Note that you can't just add 3,600 seconds to TIME () to determine the time one hour from now, since you might cross midnight, thereby requiring you to also add one to DATE () .

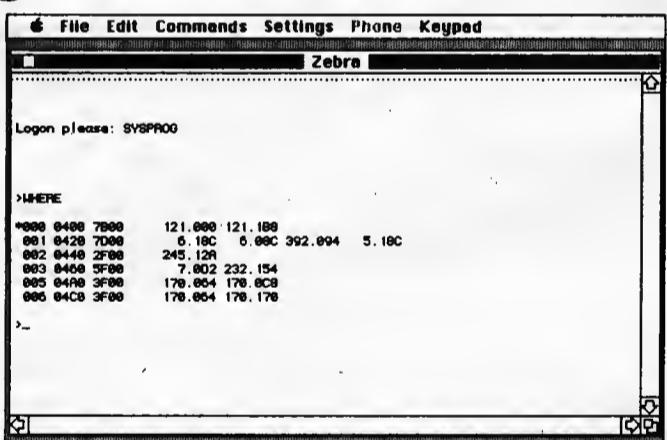
# Four programs for connecting your Macs to a Zebra.



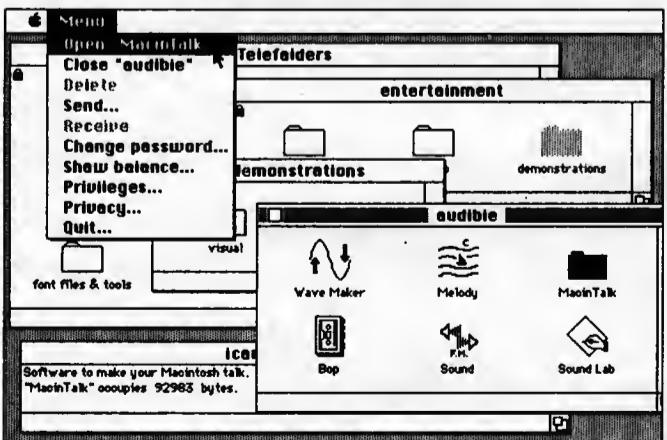
You can use FreeTerm: a simple text-only software emulator that turns your Mac into an ASCII terminal. There's no cursor control, but it does support X-on/X-off, and it's in the public domain.



Or you can use Red Ryder: a former try-before-you-buy "shareware" product, this software is now a commercial offering. It supports lots of protocols, but still doesn't do much more than let your Mac input and display text.



Or you can use MacTerminal: developed by Apple, this software turns your Mac into a complete (but slow) VT100 terminal. Still, it's only text-based, and all the power of your Mac goes wasted.



Or you can use Telefolders: sophisticated software that lets you tie your Zebra and Macs together, without losing the point-and-click power of the Macintosh interface. Mac files saved on the Zebra appear as standard icons, folders, and windows. To copy any Mac-style program, data, or document from the Zebra to your Macintosh, just click on the icon you want and select "Receive" from the Mac's pull-down menu. Each Mac also has access to its own private folder, for sending and receiving electronic mail via the Zebra.

Telefolders host software for the Zebra is \$995. A starter kit of Telefolders software for the Macintosh is \$49.95, and includes four free hours of access to Semaphore's own Zebra host, which features a large collection of Macintosh public domain software.

To order, or to receive more information, contact Semaphore Corporation, 207 Granada Drive, Aptos, CA 95003, (408) 688-9200.

# New B-TREE-P installations are sprouting up every day!



**B-TREE-P** is software that allows your data to be instantly located and output, without having to wait for lengthy file sorts or searches. Join the growing number of sites discovering the power and flexibility of **B-TREE-P**. Write or call Semaphore Corp., 207 Granada Drive, Aptos, CA 95003, (408) 688-9200.

Kilo-MicroAir • Diversified Computer Systems • Chick-Fil-A • Industrial Indemnity • Columbia County • Vectron • Advanced Technology Labs. • Arrowhead Water Co. • Mathis & Assoc. Inc. • Micor America Inc. • Systems House Inc. • Vancouver Sanitary Service • Bottom Line Software Inc. • Brown & Caldwell Labs • Colonial Pacific Leasing • Marion County Republicans • Augmented Computer Technology • Premisys • Kripalu Center • Rollings Homes Inc. • Computerized Data • Ultimate Corp. • Elliott-Pope School • Toyota of Irving • Victory Express Inc. • Compu Components • Monterey County • Butterfields • Electronic Business • Kreepy Krauly USA • Tennessee Mat Co. • Zircon Co. Inc. • Smithsonian Institution • Call U.S. Inc. • Meditech • Unison Technologies Inc. • Wavetek • Moore Industries • Systems Support Services • Aerojet General • Target Supply • Lilyblad Petroleum • Partners National Health Plans • M. Epstein Inc. • Vitek Systems Inc. • J & L Industrial Supply Co. Inc. • Century Publishing Co. • Northwest Agricultural Coop Assoc. • Tampa Bay Mgmt. Services Inc. • Spectradyne Inc. • Crosstern Corp. • Magic Chef Air Conditioning Co. • Educators Mutual Insurance • Samuelson Assoc. Co. • Anthony Pools • Brooks Equipment Co. Inc. • Associated Students UCLA • Laub Group Inc. • United Collection Bureau Inc. • Pactel Paging • Access Software Inc. • Bronson & Bratton Inc. • ACS Systems Inc. • Topsy's International Inc. • Opportunities Unlimited • Glastron-Conroy Ltd. • Xscribe Corp. • Minnesota Trade Office • Berelson Co. • San Mateo County • Creative Computer Services • Livermore Police Dept. • Hubert Distributing Co. • Reinsurance Assoc. • Oman Publishing • Capital Software Ltd. • Martin Cadillac Co. Inc. • NORPAC • AIPAC • Medical Accounting Systems • Sierra Software Inc. • May Trucking • Shoob Photography • Specialty Underwriters Inc. • Specs Music • ADDS Inc. • Excalibur Computer Systems Inc. • City of Irvine • Cornell University • Office Works • Assertive Systems • Conston Inc. • Wofford College • Chicago Kenworth • Eye Care & Surgery Center • Chandler Lumber Co. • Mark Card • Penn Independent Assoc. Inc. • Condominium Insurance • John Klein & Assoc. Inc. • Cooke Data Systems Inc. • Infocel • Multisystems Inc. • Generation Research • Miami Trading Enterprises • System Works Inc. • Flynt Systems Corp. • Life & Health Insurance Co. of America • Information Technology Consultants • Tel-A-Train Inc. • Data Operating Systems Inc. • Computyme • Stewart Co. • Trudell Trailer Sales Inc. • NCAR • Jet Electronics & Technology Inc. • Distributed Logic Corp. • University of California • Casualty Underwriters Inc. • Halprin Supply Co. • Long Beach Community Services.